UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,172	07/22/2005	Manabu Kii	275193US6PCT	7849

22850 7590 01/28/2009

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
VU, BAI D

ART UNIT	PAPER NUMBER
2165	

NOTIFICATION DATE	DELIVERY MODE
01/28/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/543,172	KII ET AL.	
	Examiner	Art Unit	
	Bai D. Vu	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 September 2008 and 23 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/12/08; 10/1/08 and 12/10/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/01/2008 has been entered.

Response to Amendment

2. Applicant has amended claims 1, 5-9, 12 and 15-18, and added new claims 19-28 in the amendments filed on 9/12/2008 and 10/23/2008.

Claims 1-28 are pending in this office action.

Notes

On page 3 lines 5-6 of the instant specification, "*the recording medium*" is referenced as a disc-shaped recording medium corresponding to a hardware device. Thus, independent claims 6, 7, 9, 12 and 15-18 recited "the recording medium" are properly claimed in accordance with 35 U.S.C. §112, sixth paragraph. Accordingly, the claims are statutory under 35 U.S.C. §101. Moreover, claim 5 is a method claim including a recording medium, therefore, claim 5 is statutory under 35 U.S.C. §101.

Response to Arguments

3. Applicant's arguments filed on 10/23/2008 with respect to claims 1-28 have been considered but they are moot in view of the new ground(s) of rejection.

Claim Objections

4. Claim 1 is objected for improper construction of computer readable storage medium preamble. The preamble of claim 1 should be written as "A computer program embodied on a computer readable storage medium having executable instructions when executed by a processor perform:".

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-3, 5-10, 12, 13 and 15-28** are rejected under 35 U.S.C. 103(a) unpatentable over Seo et al. (US Pub. No. 2004/0010415 A1) in view of Fukuda (US Pat. No. 6,469,239 B1).

As per **claim 1**, Seo et al. discloses "a computer-readable storage medium, comprising:"

"a contents area configured to record a contents file, the contents file including contents data and supplementary data corresponding to said contents data;" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)*; and *further, the file information included in directory information recording area (403, 409) and the data and tags related to the file information are recorded in data recording area (415) (¶ 0039 lines 9-12)*; *step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the table in FIG. 9

interpreted as the contents file contained information interpreted as the supplementary data; and the file database interpreted as the contents area.

"a database area, separate from the contents area, configured to record a database file, the database file including said supplementary data corresponding to said contents data included in the contents file," as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)*; *in directory information recording areas (403, 409), file information (405) that is recorded in the directory and information (407) of sub directory are recorded. File information (405) includes Field of File Name (FN), Field of File Attribute (FA), Field of Data Recording Address (FC). Sub directory information (407) includes Field for Directory Name (DN) and Field for Directory Attribute (DA). File information (405) and sub directory information (407) may have extra field (FE) depending on an employed file system (¶ 0040 lines 1-9)*; *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)*; *the directory database records the directory structure of the recording media where the digital audio*

data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085) wherein the table in FIG. 8 interpreted as the database file contained information interpreted as the supplementary data; the directory database interpreted as the database area; and as discussed above, *the directory database* is separated form the file database.

"a reproducing apparatus having a sufficient memory capacity accesses said supplementary data included in said database file" as cited herein *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)* wherein the directory database recorded in the second recording media clearly encompassed the claimed limitation.

However, Fukuda discloses "wherein a reproducing apparatus having a small memory capacity accesses said supplementary data included in the contents file", which does not explicitly disclose by Park et al. as cited herein *when it is determined in step S41 that there is a moving request of the compression music data, a file size of the compression music data whose move has been designated, namely, a data amount is*

examined by, for example, the CPU 8 on the server 50 side in step S42. In next step S43, a vacant capacity of the HDD 106, namely, a recordable memory capacity is checked by, for example, the CPU 105 of the portable recording and reproducing apparatus 70. The vacant capacity of the HDD 106 and the file size of the compression music data whose move has been designated and which was examined in step S42 are compared by, for instance, the CPU 8 of the server 50. On the basis of a comparison result in step S42, the CPU 8 discriminates whether the compression music data in which the move has been designated can be recorded to the HDD 106. If it can be recorded to the HDD 106, the processing routine advances to step S45 and the transfer of the compression music data in which the move from the server 50 toward the apparatus 70 has been designated is started. When it is determined in step S43 that the vacant capacity in the HDD 106 of the portable recording and reproducing apparatus 70 is insufficient, the processing routine advances to step S44. In step S44, the compression music data which has already been recorded to the HDD 106 is deleted automatically or on the basis of a procedure or method, which will be explained hereinafter, by the CPU 105 of the apparatus 70 so that the compression music data whose move has been designated can be recorded to the HDD 106. The processing routine advances to step S45 (col. 17 line 66 to col. 18 line 27) wherein a file size of the compression music data interpreted as a supplementary data included in the contents file.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an

operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 2**, Seo et al. discloses "the computer-readable storage medium according to claim 1, wherein a data size of said supplementary data included in said contents file and the data size of the supplementary data included in said database file are prescribed to maintain the identity of said supplementary data included in said contents file and the supplementary data included in said database file" as cited herein *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085)* wherein the table in FIG. 8 interpreted as the database file; *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the table in FIG. 9 interpreted as the contents file; and the Parent Dir Index

maintains the identity of the supplementary data between the contents file and the database file.

As per **claim 3**, Seo et al. discloses "the computer-readable storage medium according to claim 1, wherein said contents data includes digital audio data, and said supplementary data includes data of a title, an artist's name, and an album name, the data of said title, said data of the artist's name, and said data of the album name are stored in respective different database files" as cited herein *the digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 7-11)*; *Data (FD) and Additional Information Tag (FT) is recorded in data recording area (415) (¶ 0048 lines 5-7)* wherein data fields and data (FD) interpreted as digital audio data; *further, when the additional information can be obtained by extracting the additional information from Additional Information Tag (FT), the additional information is obtained by reading the field of the title, composer or player, and genre of the music, of the digital audio data (¶ 0057 lines 7-12)*; and *music under each directory indicates additional information such as title of music, singer, album name, genre, classification number and year of making (¶ 0131 lines 3-5)*.

As per **claim 5**, Seo et al. discloses "a recording method, comprising"

"recording, on a predetermined recording medium, a contents file including contents data and supplementary data corresponding to said contents data; and" as

cited herein *step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the table in FIG. 9 interpreted as the contents file.

"recording, on said predetermined recording medium, a database file including said supplementary data corresponding to said contents data included in said contents file," as cited herein *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)*; and *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number*

of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085) wherein the table in FIG. 8 interpreted as the database file.

"wherein the database file is recorded in a database area and the contents file is recorded in a contents area, separate from the database area" as discussed above, *the directory database* interpreted as the database are that is separated form the file database interpreted as the contents area.

As per **claim 6**, Seo et al. discloses "a recording apparatus, comprising:

"recording means for recording, on a predetermined recording medium, a contents file and a database file," as cited herein *(a) step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)* wherein the information recorded from directory information recording area into the directory database interpreted as the database file; and *(b) step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)* wherein the information recorded from data recording area into the file database interpreted as the contents file.

"said contents file including contents data and supplementary data corresponding to said contents data, and" as cited herein *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the table in FIG. 9 interpreted as the contents file.

"said database file including said supplementary data corresponding to said contents data included in said contents file," as cited herein *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085)* wherein the table in FIG. 8 interpreted as the database file.

"wherein the database file is recorded in a database area and the contents file is recorded in a contents area, separate from the database area" as discussed above, *the directory database* interpreted as the database are that is separated form the file database interpreted as the contents area.

As per **claim 7**, Seo et al. discloses:

"readout means for reading out supplementary data stored in a contents file from a recording medium having recorded thereon said contents file and a database file, said contents file including contents data and said supplementary data corresponding to said contents data, and said database file including said supplementary data corresponding to said contents data included in said contents file; and" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)* wherein the directory information recording area and the data recording area interpreted as the recording medium; *(a) step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)* wherein the information recorded from directory information recording area into the directory database interpreted as the database file; and *(b) step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all*

directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24) wherein the information recorded in the file database from data recording area interpreted as the contents file.

"outputting means for outputting the supplementary data, included in said contents file, read out by said readout means," as cited herein *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the directory database and the file database included the information in FIGS. 8 and 9 interpreted as outputting the supplementary data.

"wherein the database file is recorded in a database area and the contents file is recorded in a contents area, separate from the database area" as discussed above, *the directory database* interpreted as the database are that is separated form the file database interpreted as the contents area.

However, Fukuda discloses a reproducing apparatus which does not explicitly disclose by Seo et al. as cited herein *the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus. More particularly, the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus for performing a copy of data or an operation similar to the copy (col. 1 lines 6-12)*; and *FIG. 3 is a diagram schematically showing a signal flow until music data read out by a CD-ROM drive is recorded to a hard disk drive (col. 2 lines 65-67)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 8**, Seo et al. discloses the reproducing apparatus "according to claim 7, further comprising:"

"reproducing means for said contents data, wherein said readout means reads out the contents data included in said contents file, and said reproducing means reproduces the contents data read out from said readout means" as cited herein *(b) step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories*

recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24); and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the file database included the information in FIG. 9 interpreted as the contents data.

However, Fukuda discloses a reproducing apparatus which does not explicitly disclose by Seo et al. as cited herein *the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus. More particularly, the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus for performing a copy of data or an operation similar to the copy (col. 1 lines 6-12)*; and *FIG. 3 is a diagram schematically showing a signal flow until music data read out by a CD-ROM drive is recorded to a hard disk drive (col. 2 lines 65-67)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 9**, Seo et al. discloses:

"readout means for reading out supplementary data stored in a database file, from a recording medium having recorded thereon a contents file and said database file, said contents file including contents data and said supplementary data corresponding to said contents data, and said database file including said supplementary data corresponding to said contents data included in said contents file; and" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)* wherein the directory information recording area and the data recording area interpreted as the recording medium; *(a) step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)* wherein the information recorded from directory information recording area into the directory database interpreted as the database file

"outputting means for outputting the supplementary data, including in said database file, read out by said readout means," as cited herein *the directory database records the directory structure of the recording media where the digital audio data is*

recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085) wherein the directory database included the information in FIG. 8 interpreted as the outputting the supplementary data.

"wherein the database file is recorded in a database area and the contents file is recorded in a contents area, separate from the database area" as discussed above, *the directory database* interpreted as the database are that is separated form the file database interpreted as the contents area.

However, Fukuda discloses a reproducing apparatus which does not explicitly disclose by Seo et al. as cited herein *the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus. More particularly, the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus for performing a copy of data or an operation similar to the copy (col. 1 lines 6-12)*; and *FIG. 3 is a diagram schematically showing a signal flow until music data read out by a CD-ROM drive is recorded to a hard disk drive (col. 2 lines 65-67)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and

copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 10**, Seo et al. discloses the reproducing apparatus "according to claim 9, further comprising reproducing means for said contents data, wherein said readout means reads out the contents data included in said contents file, and said reproducing means reproduces the contents data read out from said readout means" as cited herein *(a) step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)* wherein the information recorded from directory information recording area into the directory database interpreted as the database file; and *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085)* wherein the directory database included the information in FIG. 9 interpreted as the contents data.

However, Fukuda discloses a reproducing apparatus which does not explicitly disclose by Seo et al. as cited herein *the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus. More particularly, the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus for performing a copy of data or an operation similar to the copy (col. 1 lines 6-12)*; and *FIG. 3 is a diagram schematically showing a signal flow until music data read out by a CD-ROM drive is recorded to a hard disk drive (col. 2 lines 65-67)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 12**, Seo et al. discloses:

readout means for selectively reading out, from a recording medium having recorded thereon a contents file and a database file, supplementary data included in said contents file and the supplementary data included in said database file, said contents file including contents data and said supplementary data corresponding to said contents data, and said database file including said supplementary data corresponding to said contents data included in said contents file; and (as cited herein *the first recording media having directory information recording area where information*

regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12) wherein the directory information recording area and the data recording area interpreted as the recording medium; *(a) step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)* wherein the information recorded from directory information recording area into the directory database interpreted as the database file; and *(b) step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*).

"outputting means for outputting the supplementary data read out by said readout means," as cited herein *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent*

Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085); and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the directory database and the file database included the information in FIGS. 8 and 9 interpreted as outputting the supplementary data.

"wherein the database file is recorded in a database area and the contents file is recorded in a contents area, separate from the database area" as discussed above, *the directory database* interpreted as the database are that is separated form the file database interpreted as the contents area.

However, Fukuda discloses a reproducing apparatus that audio data file reading out selectively from the user, which does not explicitly disclose by Seo et al. as cited herein *the user can select an arbitrary one of the music pieces stored on the hard disk on the basis of the music title list displayed in the display unit 53 and can be reproduced. Since a random access can be performed in the hard disk, music data stored can be read out and continuously reproduced in accordance with an arbitrary order (col. 4 lines 31-37)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 13**, Seo et al. discloses the reproducing apparatus "according to claim 12, further comprising reproducing means for said contents data, wherein said readout means also reads out contents data included in said contents file, and said reproducing means reproduces the contents data read out from said readout means" as cited herein *(b) step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the file database included the information in FIG. 9 interpreted as the contents data.

However, Fukuda discloses a reproducing apparatus which does not explicitly disclose by Seo et al. as cited herein *the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus. More particularly, the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus for performing a copy of data or an operation similar to the copy (col. 1 lines 6-12)*; and *FIG. 3 is a diagram schematically showing a signal flow until music data read out by a CD-ROM drive is recorded to a hard disk drive (col. 2 lines 65-67)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 15**, Seo et al. discloses "a recording apparatus, comprising:"

"a recording unit configured to record, on a predetermined recording medium, a contents file and a database file," as cited herein *(a) step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)* wherein the information recorded from directory information recording area into the directory database interpreted as the

database file; and *(b) step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)* wherein the information recorded from data recording area into the file database interpreted as the contents file.

"said contents file including contents data and supplementary data corresponding to said contents data, and" as cited herein *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the table in FIG. 9 interpreted as the contents file.

"said database file including said supplementary data corresponding to said contents data included in said contents file," as cited herein *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index)*

and Number of Sub File (Number of Sub File) (¶ 0085) wherein the table in FIG. 8 interpreted as the database file.

"wherein the database file is recorded in a database area and the contents file is recorded in a contents area, separate from the database area" as discussed above, *the directory database* interpreted as the database are that is separated form the file database interpreted as the contents area.

As per **claim 16**, Seo et al. discloses:

"a readout unit configured to read out supplementary data stored in a contents file from a recording medium having recorded thereon said contents file and a database file, said contents file including contents data and said supplementary data corresponding to said contents data, and said database file including said supplementary data corresponding to said contents data included in said contents file; and" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)* wherein the directory information recording area and the data recording area interpreted as the recording medium; *(a) step for making directory database which is constituted by fields including name of said directory and recording position of said*

directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18) wherein the information recorded from directory information recording area into the directory database interpreted as the database file; and *(b) step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)* wherein the information recorded in the file database from data recording area interpreted as the contents file.

"an outputting unit configured to output the supplementary data, included in said contents file, read out by said readout unit," as cited herein *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9,*

the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090) wherein the directory database and the file database included the information in FIGS. 8 and 9 interpreted as outputting the supplementary data.

"wherein the database file is recorded in a database area and the contents file is recorded in a contents area, separate from the database area" as discussed above, *the directory database* interpreted as the database are that is separated form the file database interpreted as the contents area.

However, Fukuda discloses a reproducing apparatus which does not explicitly disclose by Seo et al. as cited herein *the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus. More particularly, the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus for performing a copy of data or an operation similar to the copy (col. 1 lines 6-12)*; and *FIG. 3 is a diagram schematically showing a signal flow until music data read out by a CD-ROM drive is recorded to a hard disk drive (col. 2 lines 65-67)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 17**, Seo et al. discloses:

"a readout unit configured to read out supplementary data stored in a database file, from a recording medium having recorded thereon a contents file and said database file, said contents file including contents data and said supplementary data corresponding to said contents data, and said database file including said supplementary data corresponding to said contents data included in said contents file; and" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)* wherein the directory information recording area and the data recording area interpreted as the recording medium; *(a) step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)* wherein the information recorded from directory information recording area into the directory database interpreted as the database file.

"an outputting unit configured to output the supplementary data, included in said database file, read out by said readout unit," as cited herein *the directory database*

records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085) wherein the directory database included the information in FIG. 8 interpreted as the outputting the supplementary data.

"wherein the database file is recorded in a database area and the contents file is recorded in a contents area, separate from the database area" as discussed above, *the directory database* interpreted as the database are that is separated form the file database interpreted as the contents area.

However, Fukuda discloses a reproducing apparatus which does not explicitly disclose by Seo et al. as cited herein *the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus. More particularly, the invention relates to a recording and reproducing apparatus, a recording and reproducing method, and a data processing apparatus for performing a copy of data or an operation similar to the copy (col. 1 lines 6-12)*; and *FIG. 3 is a diagram schematically showing a signal flow until music data read out by a CD-ROM drive is recorded to a hard disk drive (col. 2 lines 65-67)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an

operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 18**, Seo et al. discloses:

a readout unit configured to selectively read out, from a recording medium having recorded thereon a contents file and a database file, supplementary data included in said contents file and the supplementary data included in said database file, said contents file including contents data and said supplementary data corresponding to said contents data, and said database file including said supplementary data corresponding to said contents data included in said contents file; and (as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)* wherein the directory information recording area and the data recording area interpreted as the recording medium; *(a) step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second*

recording media (¶ 0016 lines 12-18) wherein the information recorded from directory information recording area into the directory database interpreted as the database file; and *(b) step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*).

"an outputting unit configured to output the supplementary data read out by said readout unit," as cited herein *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* wherein the directory database and the file database included the information in FIGS. 8 and 9 interpreted as outputting the supplementary data.

"wherein the database file is recorded in a database area and the contents file is recorded in a contents area, separate from the database area" as discussed above, *the directory database* interpreted as the database are that is separated form the file database interpreted as the contents area.

However, Fukuda discloses a reproducing apparatus that audio data file reading out selectively from the user, which does not explicitly disclose by Seo et al. as cited herein *the user can select an arbitrary one of the music pieces stored on the hard disk on the basis of the music title list displayed in the display unit 53 and can be reproduced. Since a random access can be performed in the hard disk, music data stored can be read out and continuously reproduced in accordance with an arbitrary order (col. 4 lines 31-37)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 19**, Seo et al. discloses "the computer-readable storage medium according to claim 1, wherein the contents area is configured to record a second contents file including second contents data and second supplementary data corresponding to said second contents data, and" as cited herein *the first recording media having directory information recording area where information regarding directory*

is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12); and *further, the file information included in directory information recording area (403, 409) and the data and tags related to the file information are recorded in data recording area (415) (¶ 0039 lines 9-12)*; *step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)*.

"the database area is configured to record the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information*

regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12); *in directory information recording areas (403, 409), file information (405) that is recorded in the directory and information (407) of sub directory are recorded. File information (405) includes Field of File Name (FN), Field of File Attribute (FA), Field of Data Recording Address (FC). Sub directory information (407) includes Field for Directory Name (DN) and Field for Directory Attribute (DA). File information (405) and sub directory information (407) may have extra field (FE) depending on an employed file system (¶ 0040 lines 1-9)*; *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)*; *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085).*

As per **claim 20**, Seo et al. discloses "the recording method according to claim 5, wherein the recording the contents file comprises recording a second contents file including second contents data and second supplementary data corresponding to said second contents data, and" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)*; and *further, the file information included in directory information recording area (403, 409) and the data and tags related to the file information are recorded in data recording area (415) (¶ 0039 lines 9-12)*; *step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)*.

"the recording the database file comprises recording the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)*; *in directory information recording areas (403, 409), file information (405) that is recorded in the directory and information (407) of sub directory are recorded. File information (405) includes Field of File Name (FN), Field of File Attribute (FA), Field of Data Recording Address (FC). Sub directory information (407) includes Field for Directory Name (DN) and Field for Directory Attribute (DA). File information (405) and sub directory information (407) may have extra field (FE) depending on an employed file system (¶ 0040 lines 1-9)*; *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)*; *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name*

Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085).

As per **claim 21**, Seo et al. discloses "the recording apparatus according to claim 6, wherein the recording means records a second contents file including second contents data and second supplementary data corresponding to said second contents data, and" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)*; and *further, the file information included in directory information recording area (403, 409) and the data and tags related to the file information are recorded in data recording area (415) (¶ 0039 lines 9-12)*; *step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of*

audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090).

"records the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12); in directory information recording areas (403, 409), file information (405) that is recorded in the directory and information (407) of sub directory are recorded. File information (405) includes Field of File Name (FN), Field of File Attribute (FA), Field of Data Recording Address (FC). Sub directory information (407) includes Field for Directory Name (DN) and Field for Directory Attribute (DA). File information (405) and sub directory information (407) may have extra field (FE) depending on an employed file system (¶ 0040 lines 1-9); step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories*

recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18); the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085).

As per **claim 22**, Seo et al. discloses "the reproducing apparatus according to claim 7, wherein the readout means reads out the supplementary data and second supplementary data, stored in the contents file and a second contents file, respectively, from the recording medium, the recording medium having recorded thereon the second contents file including second contents data and the second supplementary data corresponding to said second contents data and the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory*

information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12); and *further, the file information included in directory information recording area (403, 409) and the data and tags related to the file information are recorded in data recording area (415) (¶ 0039 lines 9-12)*; *step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)*.

As per **claim 23**, Seo et al. discloses "the reproducing apparatus according to claim 9, wherein the readout means reads out the supplementary data and second supplementary data stored in the database file, from the recording medium having stored thereon a second contents file including second contents data and the second supplementary data corresponding to said second contents data and the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively" as cited herein *the first*

recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12); *in directory information recording areas (403, 409), file information (405) that is recorded in the directory and information (407) of sub directory are recorded. File information (405) includes Field of File Name (FN), Field of File Attribute (FA), Field of Data Recording Address (FC). Sub directory information (407) includes Field for Directory Name (DN) and Field for Directory Attribute (DA). File information (405) and sub directory information (407) may have extra field (FE) depending on an employed file system (¶ 0040 lines 1-9)*; *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)*; *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub*

Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085).

As per **claim 24**, Seo et al. discloses "the reproducing apparatus according to claim 12, wherein"

the readout means selectively reads out said contents file and said database file from the recording medium, the recording medium having recorded thereon a second contents file including second contents data and second supplementary data corresponding to said second contents data and the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively (as cited herein s*tep for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* interpreted as the contents file; *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording*

area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18); *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085)* interpreted as the database file).

However, Fukuda discloses a reproducing apparatus that audio data file reading out selectively from the user, which does not explicitly disclose by Seo et al. as cited herein *the user can select an arbitrary one of the music pieces stored on the hard disk on the basis of the music title list displayed in the display unit 53 and can be reproduced. Since a random access can be performed in the hard disk, music data stored can be read out and continuously reproduced in accordance with an arbitrary order (col. 4 lines 31-37)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

As per **claim 25**, Seo et al. discloses "the recording apparatus according to claim 15, wherein the recording unit is configured to record a second contents file including second contents data and second supplementary data corresponding to said second contents data, and" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)*; and *further, the file information included in directory information recording area (403, 409) and the data and tags related to the file information are recorded in data recording area (415) (¶ 0039 lines 9-12)*; *step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size,*

Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090).

"to record the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)*; *in directory information recording areas (403, 409), file information (405) that is recorded in the directory and information (407) of sub directory are recorded. File information (405) includes Field of File Name (FN), Field of File Attribute (FA), Field of Data Recording Address (FC). Sub directory information (407) includes Field for Directory Name (DN) and Field for Directory Attribute (DA). File information (405) and sub directory information (407) may have extra field (FE) depending on an employed file system (¶ 0040 lines 1-9)*; *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)*; *the directory database records the directory structure of the recording media where the digital audio data is*

recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085).

As per **claim 26**, Seo et al. discloses "the reproducing apparatus according to claim 16, wherein the readout unit is configured to read out the supplementary data and second supplementary data, stored in the contents file and a second contents file, respectively, from the recording medium, the recording medium having recorded thereon the second contents file including second contents data and the second supplementary data corresponding to said second contents data and the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12)*; and *further, the file information included in directory information recording area (403,*

409) and the data and tags related to the file information are recorded in data recording area (415) (¶ 0039 lines 9-12); *step for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)*.

As per **claim 27**, Seo et al. discloses "the reproducing apparatus according to claim 17, wherein the readout unit is configured to read out the supplementary data and second supplementary data stored in the database file, from the recording medium having stored thereon a second contents file including second contents data and the second supplementary data corresponding to said second contents data and the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively" as cited herein *the first recording media having directory information recording area where information regarding directory is recorded and data recording area where file data is recorded according to information regarding sub file of the directory recorded in said directory*

information recording area. The digital audio data files including file name fields which are recorded in said directory information recording area, data fields and additional information tag field which are recorded in said data recording area (¶ 0016 lines 2-12); *in directory information recording areas (403, 409), file information (405) that is recorded in the directory and information (407) of sub directory are recorded. File information (405) includes Field of File Name (FN), Field of File Attribute (FA), Field of Data Recording Address (FC). Sub directory information (407) includes Field for Directory Name (DN) and Field for Directory Attribute (DA). File information (405) and sub directory information (407) may have extra field (FE) depending on an employed file system (¶ 0040 lines 1-9)*; *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)*; *the directory database records the directory structure of the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085)*.

As per **claim 28**, Seo et al. discloses "the reproducing apparatus according to claim 18, wherein"

the readout unit is configured to selectively read out said contents file and said database file from the recording medium, the recording medium having recorded thereon a second contents file including second contents data and second supplementary data corresponding to said second contents data and the database file including said supplementary data and said second supplementary data included in the contents file and the second contents file, respectively (as cited herein s*tep for making file database which is constituted by fields including name of sub file and position in which said sub file is recorded in said data recording area by accessing said recording position in said directory information recording area, for all directories recorded in said directory database, and recording said file database in said second recording media (¶ 0016 lines 18-24)*; and *the file database records all information of audio data file that is recorded in the recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 9, the file database includes File Index, Parent Directory Index, File Size, File Position, Title Size, Title, Index of Index Information for example, Artist Index and Genre Index fields (¶ 0090)* interpreted as the contents file; *step for making directory database which is constituted by fields including name of said directory and recording position of said directory in said directory information recording area, for all directories recorded in said directory information recording area, and recording said directory database in said second recording media (¶ 0016 lines 12-18)*; *the directory database records the directory structure of the*

recording media where the digital audio data is recorded in accordance with the present invention. As illustrated in FIG. 8, the directory database includes Directory Index (Dir Index), Directory Name Size (Dir Name Size), Directory Name (Dir Name), Parent Directory Index (Parent Dir Index), Position of Directory Information Recording Area (Dir Rec Position), Sub Directory Index (Sub Dir Index), Number of Sub Directory (Number of Sub Dir), Sub File Index (Sub File Index) and Number of Sub File (Number of Sub File) (¶ 0085) interpreted as the database file).

However, Fukuda discloses a reproducing apparatus that audio data file reading out selectively from the user, which does not explicitly disclose by Seo et al. as cited herein *the user can select an arbitrary one of the music pieces stored on the hard disk on the basis of the music title list displayed in the display unit 53 and can be reproduced. Since a random access can be performed in the hard disk, music data stored can be read out and continuously reproduced in accordance with an arbitrary order (col. 4 lines 31-37)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Fukuda teaching of performing a copy of data or an operation similar to the copy into Seo et al. system in order to perform digital move and copy of digital music data to another recording medium while protecting the copyright (Fukuda, col. 1 lines 58-60).

7. **Claims 4, 11 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Seo et al. in view of Fukuda, and further in view of Ogihara et al. (US Pub. No. 2004/0117547 A1).

As per **claim 4**, Seo et al. and Fukuda do not explicitly disclose "the computer-readable storage medium according to claim 1 wherein said computer-readable storage medium is a disc-shaped recording medium on which recording is made by a recording head".

However, Ogihara et al. discloses as cited herein *a disk drive 19 in this case is a so-called CD-ROM drive. The disk drive 19 has an optical head, a spindle motor, a reproduced signal processing unit, a servo circuit, and the like. The disk drive 19 can read data from a disk medium conforming to a CD format. That is, the disk drive 19 can read data from a CD-ROM, a CD-DA, and the like (¶ 0043)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Ogihara et al. teaching of reproducing an audio-only disk-shaped recording medium into Seo et al. and Fukuda systems in order to provide an information processing method for reading an audio signal from an audio-only disk-shaped recording medium by a reproducing device and reproducing the audio signal (Ogihara et al., ¶ 0021 lines 1-3).

As per **claim 11**, Seo et al. and Fukuda do not explicitly disclose "the reproducing apparatus according to claim 9, wherein a plurality of the contents data are

recorded on said recording medium; said outputting means forms said supplementary data into a list and displays the resulting list; and the reproducing apparatus further comprises selecting means for selectively reading out at least one of said supplementary data displayed on said outputting means, the contents data corresponding to the supplementary data selected being read out from said recording medium and reproduced".

However, Ogihara et al. discloses as cited herein *when the CPU 11 supplies a display processing unit 16 with display information in accordance with various operation states, input states, and communication states, the display processing unit 16 makes the display monitor 17 perform display operation on the basis of the supplied display data. In the case of the present embodiment, for example, the display monitor 17 displays a GUI screen for managing and reproducing an audio file according to a program of a ripping application as application software for reproducing and managing ripped audio files (¶ 0041 – 0042)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Ogihara et al. teaching of reproducing an audio-only disk-shaped recording medium into Seo et al. and Fukuda systems in order to provide an information processing method for reading an audio signal from an audio-only disk-shaped recording medium by a reproducing device and reproducing the audio signal (Ogihara et al., ¶ 0021 lines 1-3).

As per **claim 14**, Seo et al. and Fukuda do not explicitly disclose "the reproducing apparatus according to claim 12, wherein a plurality of the contents data are recorded on said recording medium; said outputting means forms said supplementary data into a list and displays the resulting list; and the reproducing apparatus further comprises selecting means for selectively reading out at least one of said supplementary data displayed on said outputting means, the contents data corresponding to the supplementary data selected being read out from said recording medium and reproduced'.

However, Ogihara et al. discloses as cited herein *when the CPU 11 supplies a display processing unit 16 with display information in accordance with various operation states, input states, and communication states, the display processing unit 16 makes the display monitor 17 perform display operation on the basis of the supplied display data. In the case of the present embodiment, for example, the display monitor 17 displays a GUI screen for managing and reproducing an audio file according to a program of a ripping application as application software for reproducing and managing ripped audio files (¶ 0041 – 0042)*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Ogihara et al. teaching of reproducing an audio-only disk-shaped recording medium into Seo et al. and Fukuda systems in order to provide an information processing method for reading an audio signal from an audio-only disk-shaped recording medium by a reproducing device and reproducing the audio signal (Ogihara et al., ¶ 0021 lines 1-3).

Conclusion

8. The examiner requests, in response to this Office Action, support is shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line number(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

When responding to this Office Action, applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bai D. Vu whose telephone number is (571)270-1751. The examiner can normally be reached on Mon - Fri 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bai D. Vu/
Examiner, Art Unit 2165
01/14/2009

/C. T. T./
Primary Examiner, Art Unit 2169

/Neveen Abel-Jalil/
Primary Examiner, Art Unit 2165